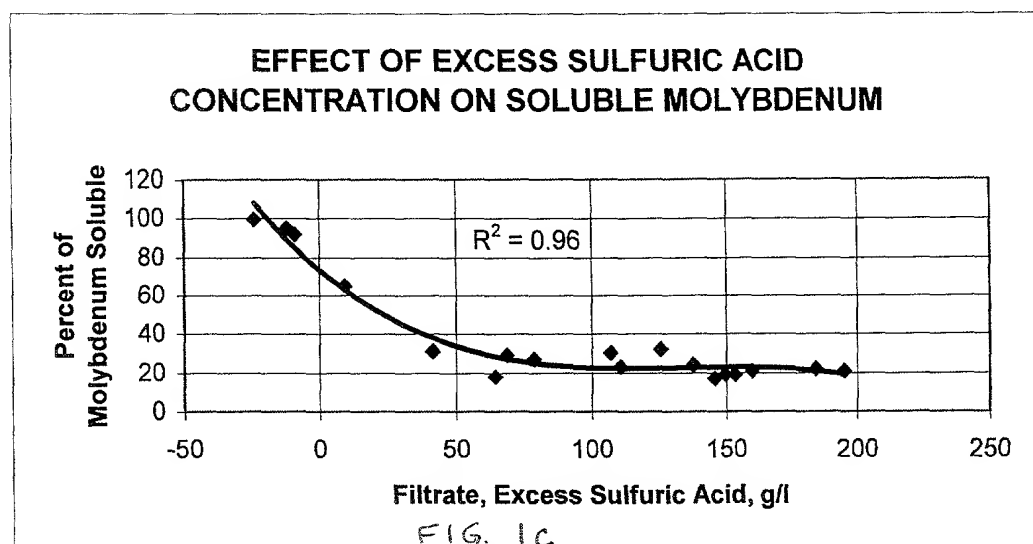
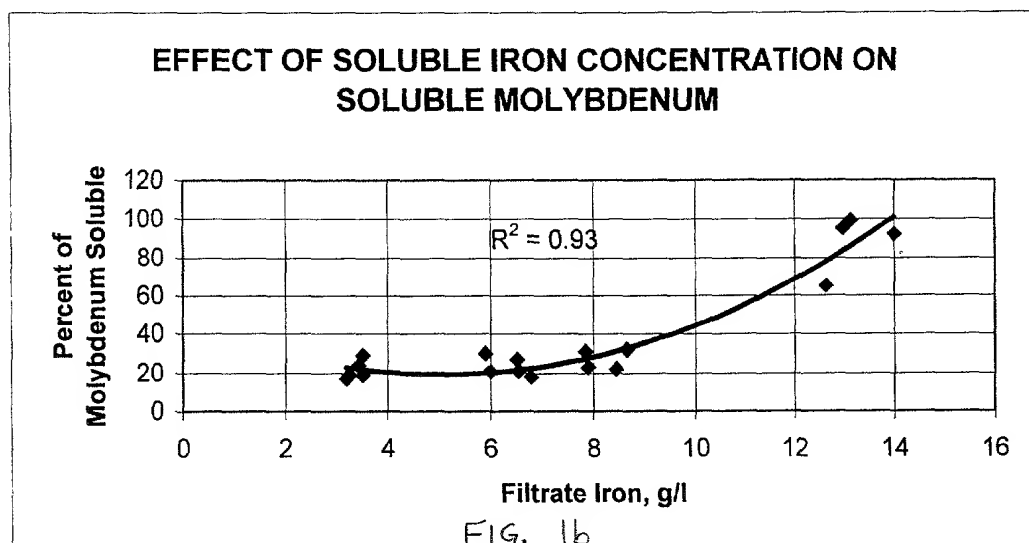
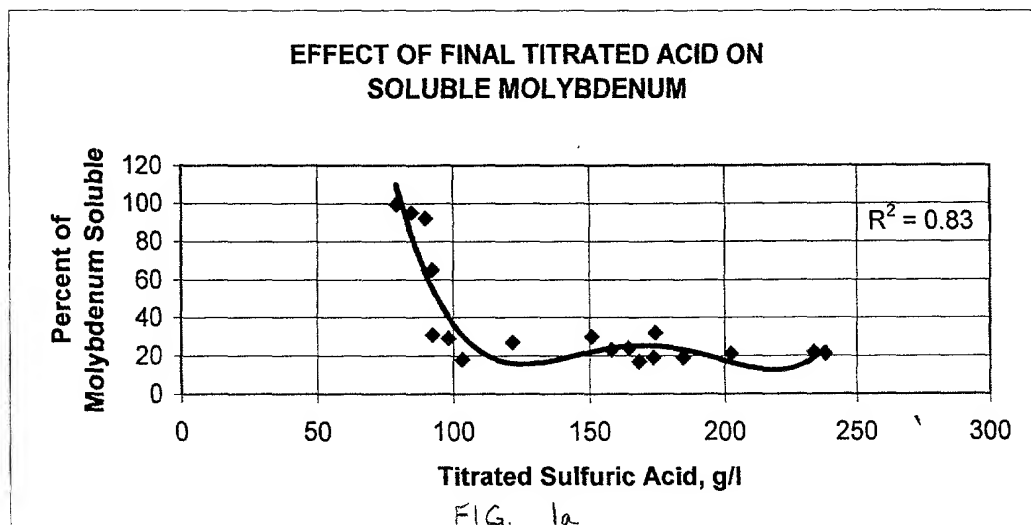
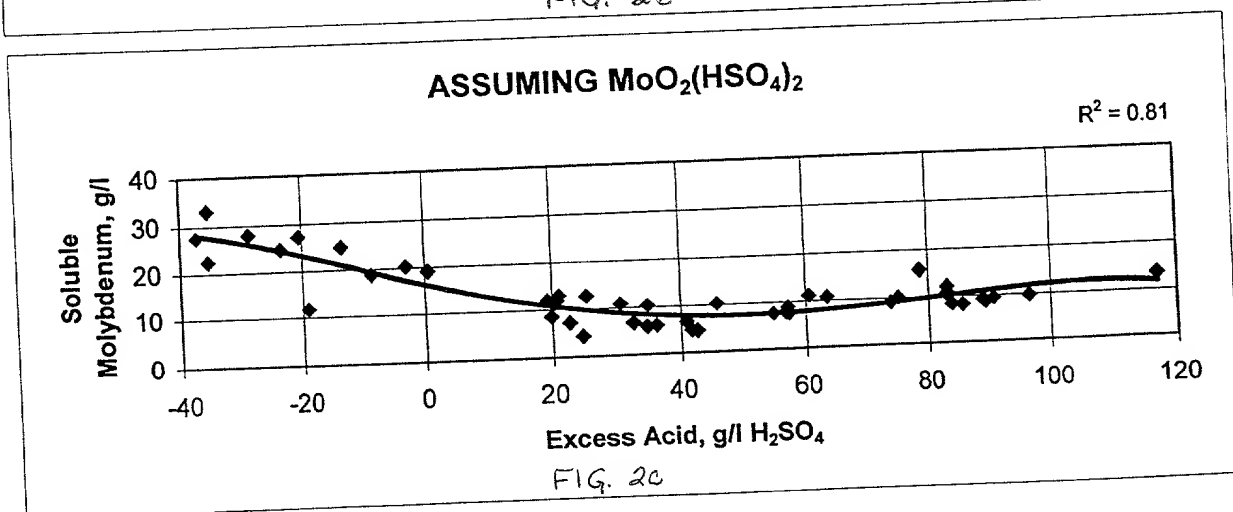
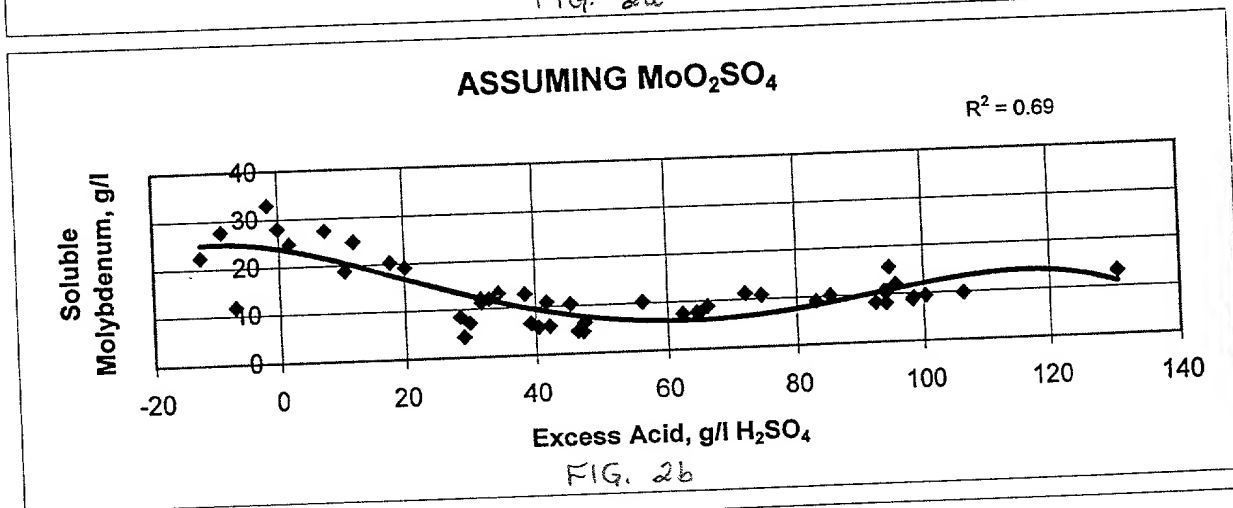
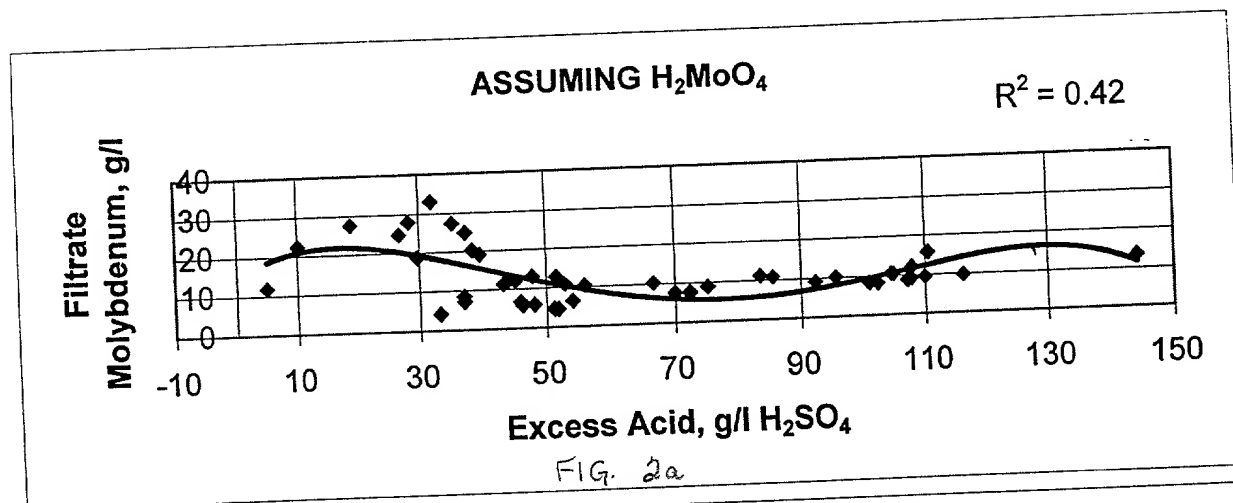


EFFECT OF VARIABLES ON SOLUBLE MOLYBDENUM



EFFECT OF EXCESS ACID IN FILTRATE ON SOLUBLE MOLYBDENUM



TITRATED ACID vs EXCESS ACID

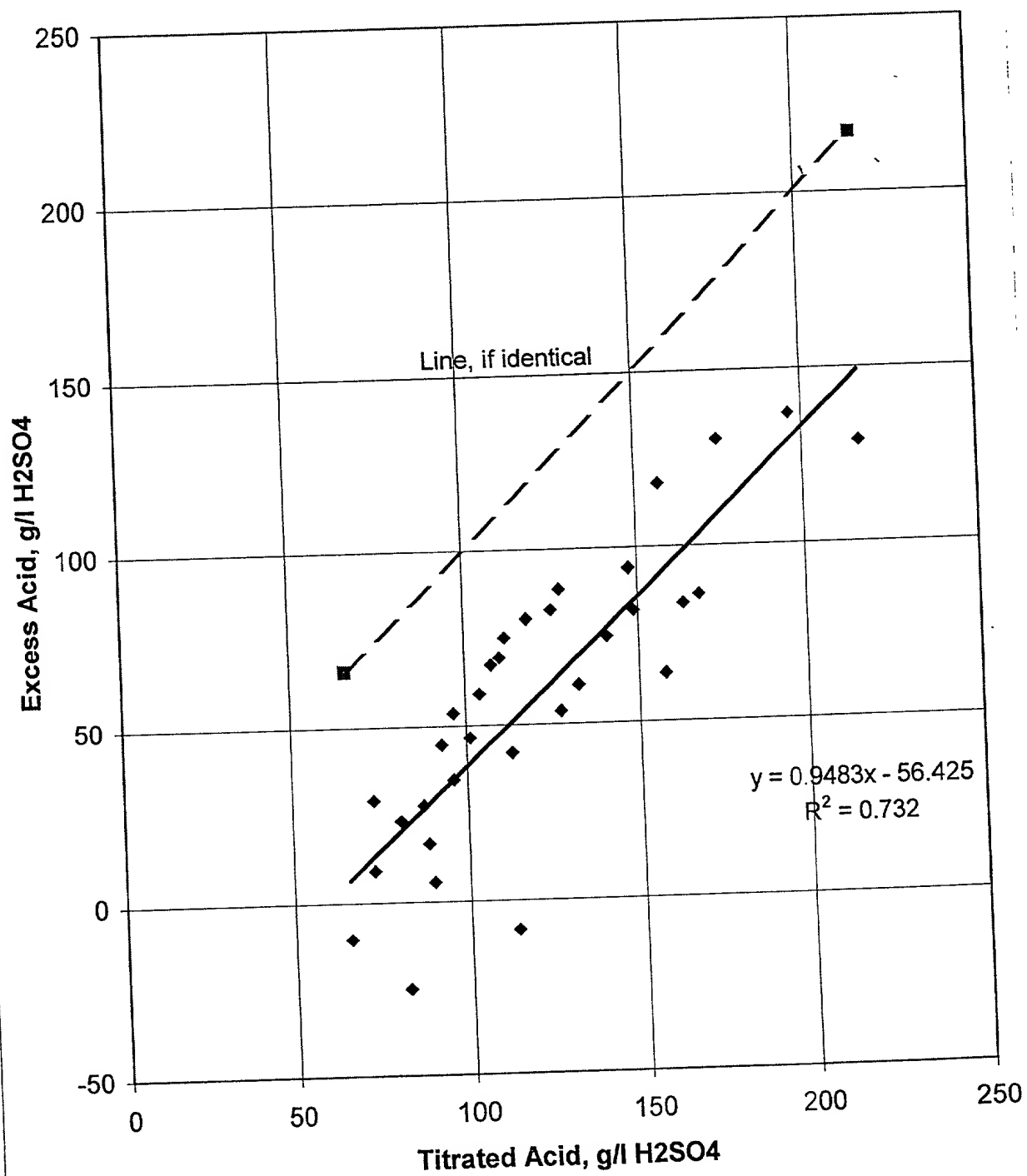


FIG. 3

MODEL TO PREDICT SOLUBLE MOLYBDENUM AFTER PRESSURE OXIDATION OF MOLYBDENITE

Concentrate and recycle entries are moles added per liter of initial autoclave slurry.

Concentrate

Moles Mo ("A")	0		
Moles Cu ("B")	0		
Moles Fe ("C")	0	Net acid from concentrate, mol/l ("H")	0.000

Recycle Solution

Moles Mo ("D")	0		
Moles Cu ("E")	0		
Moles Fe ("F")	0		
Moles H2SO4 ("G")	0	Excess acid, mol/l ("I")	0.00
		Gross initial acid, mol/l ("J")	0.00
		Predicted g/l Fe ("K")	0.00

Initial prediction, Mo g/l ("L")	22.59		
If all MoS2 soluble, g/l Mo ("M")	0		
Mo from MoS2 precipitated, g/l ("N")	-22.59		
Percent precipitated ("O")	#DIV/0!		
Acid from addl pptn, mol/l ("P")	#DIV/0!		
Gross excess acid, mol/l ("Q")	#DIV/0!		
Final predicted Mo g/l ("R")	#DIV/0!		
Corrected so solubility does not exceed "M", "S"	#DIV/0!		

Formulae used in calculations

"H"	$-(\text{"B"} * 3) - ((\text{"C"} - \text{"B"}) * 0.5) + (\text{"A"} * 0.2 * 2) + (\text{"C"} * 0.3 * 3)$
"I"	$(\text{"G"} + ((3 * \text{"D"}) - (2 * \text{"E"}) - (3 * \text{"F"})) / 2)$
"J"	$\text{"I"} + \text{"H"}$
"K"	$((\text{"C"} * 0.7) + \text{"F"}) * 55.85$
"L"	$(-10.369 * (\text{"J"} ^ 3)) + (38.992 * (\text{"J"} ^ 2)) + (-46.065 * \text{"J"}) + 25.892 + (\text{"K"} / 3) - 3.3$
"M"	$96 * \text{"A"}$
"N"	$\text{"M"} - \text{"L"}$
"O"	$\text{"N"} / \text{"M"}$
"P"	$(\text{"O"} - 0.2) * (\text{"A"} * 4 / 2)$
"Q"	$\text{"I"} + \text{"C"} + \text{"P"}$
"R"	$(-10.369 * (\text{"Q"} ^ 3)) + (38.992 * (\text{"Q"} ^ 2)) - (46.065 * \text{"Q"}) + 25.892 + (\text{"K"} / 3) - 3.3$
"S"	$\text{if}(\text{"R"} > \text{"M"}, \text{"M"}, \text{"R"})$

Note: Functions in the equations are spreadsheet style, i.e., * is times, / is divide, ^ to the power

FIG. 4

PREDICTED PERCENT SOLUBLE MOLYBDENUM **versus ACTUAL** **Final Series of Tests**

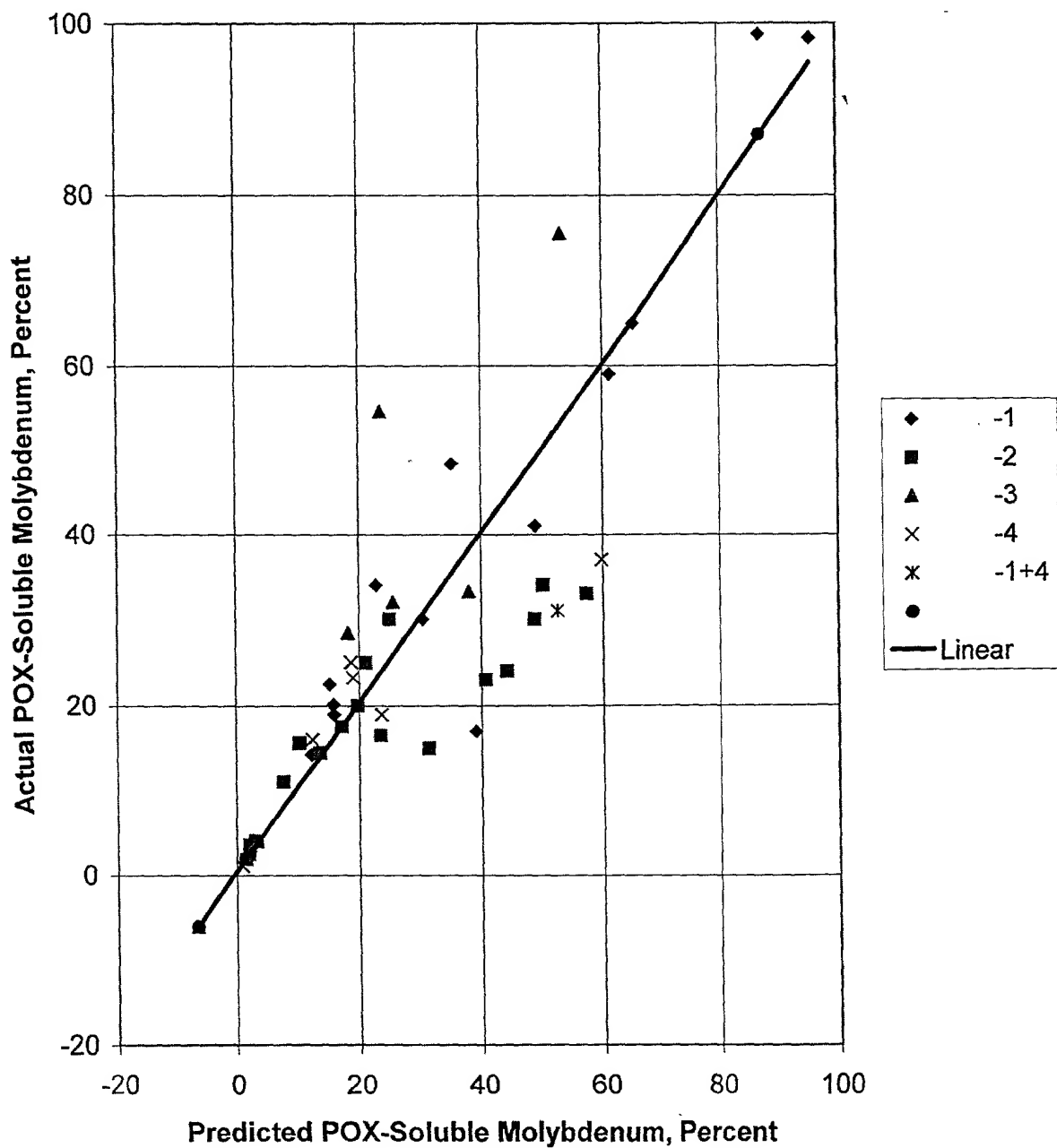


FIG. 5